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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,304	08/27/2001	Edward L. Lopatinsky	01494/HG	5073

7590

03/20/2003

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EXAMINER

MULLINS, BURTON S

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 03/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/940,304

Applicant(s)

LOPATINSKY ET AL.

Examiner

Burton S. Mullins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 32-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,3,14-31,37 and 38 is/are rejected.
- 7) ☒ Claim(s) 1 and 4-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Claims 32-36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention (Group II), there being no allowable generic or linking claim. Election was made **without** traverse in the response filed 16 January 2003.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 8 January 2002 has been considered by the examiner.

Specification

3. The disclosure is objected to because of the following informalities: On p.2, line 18, insert a ---the--- before "processor". On p.12, line 15, change "ensures" to -insures--. Applicant is requested to also make changes to the specification where instances similar to the claim objections and 35 USC 112, second paragraph rejections set forth below occur. Appropriate correction is required.

Claim Objections

4. Claims 1-31 and 37-38 are objected to because of the following informalities: Applicant is requested to correct the numerous syntax and grammar errors in claims 1-31 and 37-38. Claims 1-2, with suggested corrections, are set forth below. Similar corrections should be made to the remaining claims.

Claim 1. A cooler for electronic devices comprising;

(i) a heat exchange element having a first and a second surface[s], a blower with a radial type impeller, and an electric drive, wherein;

(ii) said heat exchange element comprises [comprising] heat exchanging means made on the first surface of said heat exchange element while the [its] second surface provides thermal contact with a heat-radiating means;

(iii) said radial type impeller has a shroud with a flat surface on [from] one side, a hub and brackets and a central inlet between the shroud and the hub, said brackets connecting the hub with the shroud; said radial type impeller [is] positioned on the heat exchange element so that the heat exchanging means is [being] surrounded by the radial type impeller and a cooling gas flows to the radial type impeller from the central inlet through the heat exchanging means;

(iv) said electric drive comprises [comprising] a magnetic rotor and a stator; said magnetic rotor is a substantially flat disk rotor comprising a central bole inside the substantially flat disk rotor and circumferential arrayed like_poles; [,] said stator comprising circumferential arrayed coils, the axis of said coils [are] parallel to the axis of rotation, said coils mounted around [of] the circumferential arrayed like_poles; said magnetic rotor [is] placed on the shroud of the radial type impeller and connected with the shroud; [,] the shaft of the electric drive [is] located inside the hub of the radial type impeller; [,] and the central bole of the flat disk rotor [is] substantially coincides [coincided] with the central inlet.

Claim 2. A cooler for electronic devices as claimed in claim 1, wherein said substantially flat disk rotor further comprises [comprising] at least two magnetized rings having the central hole inside the rings and circumferential arrayed like_poles and being mounted

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perpendicularly to the axis of rotation, and said circumferential arrayed like_poles of one of the magnetized rings are [being] magnetized in opposite polarity and coincide with [to] the circumferential arrayed like_poles of another magnetized ring in a projection at a plane normal to the axis of rotation; said at least two flat rings installed with a gap between said flat rings in a place[,] where the magnetic rotor interacts with the stator, and with a contact between said flat ring axially beyond the gap, said coils of said stator at least partially mounted at the gap between the circumferential arrayed like_poles of one of the magnetized rings and the [like] circumferential arrayed like-poles of the [an]other adjacent magnetized ring.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2-3, 14-31 and 37-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 2, recitation "and with a contact between said flat ring axially beyond the gap" makes no sense. In claims 14, 37 and 38, recitations "in a series way" and "and with a contact between said flat ring axially beyond the gap" make no sense. In claim 38, recitation "(brackets ?)" is indefinite.

Allowable Subject Matter

7. Claims 1 and 4-13 are allowed pending changes to overcome the objections noted above.
8. Claims 2-3, 14-31 and 37-38 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.
9. The following is an examiner's statement of reasons for allowance: The prior art does not teach in an electronic device cooler comprising, inter alia, the combination of a heat exchange element having a first and a second surfaces, a blower with a radial type impeller, and an electric drive, wherein the impeller has a shroud with a flat surface on one side, a hub and brackets and a central inlet between the shroud and the hub, said brackets connecting the hub with the shroud; with the impeller positioned on the heat exchange element so that the heat exchanging means is surrounded by the impeller and a cooling gas flows to the radial type impeller from the central inlet through the heat exchanger; and the electric drive comprises a substantially flat disk magnetic rotor comprising a central bore inside the substantially flat disk rotor and circumferential arrayed like-poles and a stator comprising circumferential arrayed coils; wherein the magnetic rotor is placed on the shroud of the radial type impeller and connected with the shroud and the shaft of the electric drive is located inside the hub of the radial type impeller, and the central bore of the flat disk rotor coincides with the central inlet.


Barzideh and Mueller, like the remaining prior art references, teach inlets in their respective motor housings but do not teach central bores in the rotor; neither do they teach that air flows through the rotor bore and heat exchanger to the impeller from the central inlet.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Burton S. Mullins whose telephone number is 305-7063. The examiner can normally be reached on Monday-Friday, 9 am to 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are 305-1341 for regular communications and 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0956.


Burton S. Mullins
Primary Examiner
Art Unit 2834

bsm
March 13, 2003